

REMARKS

Claims 1-4, 6, 8-24, 26, 28-44, 46, 48-50, 74, 77-85, 90 and 91 are pending in this application. All claims have been finally rejected. Through this response, Applicant submits further evidence in support of patentability, notably the enclosed *Declaration of Erland R. Sandstrom* which enumerates further unexpected and surprising attributes of the invention.

A *Request for Continued Examination Under 37 CFR 1.114* is also submitted herewith.

In the last Office Action the rejections of Claims 1-4, 6, 8-24, 26, 28-44, 46, 48-50, 74 and 77-85 under 35 USC §112, second paragraph, previously made in the Official Action of January 17, 2002, were repeated. Those rejections involved objection to the terms "disposable", "tumbler", "fortified", "biaxial toughness" and "fortified rim".

The terms "disposable" and "biaxial toughness" have previously been eliminated from the claims, in the response filed May 17, 2002 in this case and replaced with language to the effect that the tumblers are 1.5 to 4 times that of parisons from which they are made. One of skill in the art would thus readily understand the tumblers are disposable and that the parisons have been radially expanded in the process so that they have biaxial toughness. The §112 rejections as to these terms is considered moot in any event due to their cancellation.

The term "tumbler" is defined in the dictionary exhibit previously submitted as "flat bottom glass having no handle, foot, or stem". That definition is believed consistent with the specification and drawings and is thus believed reasonably definite for present purposes. "fortified" is an adjective meaning strengthened and in any event the amendments filed in May, 2002, recite a specific thickness and that term is thus believed reasonably definite in its context for present purposes. In further support of the claim terminology, there is attached hereto as Exhibits 1 and 2, respectively, definitions of tumbler and fortified from the Random House Unabridged Dictionary (Antwerp, 1998) showing the ordinary meaning of these

terms. The usage in the specification and claims is entirely consistent with these definitions. It is noted courts regularly refer to dictionary definitions in interpreting claims. *See Antonius v. Spalding & Evenflo Companies, Inc.*, 61 USPQ2d 1245 (CAFC 2002); *CCS Fitness Inc. v. Brunswick Corp.*, 62 USPQ2d 1658 (CAFC 2002); and *In re Garnero*, 162 USPQ2d 221 (CCPA 1969), a copy of which is attached as Exhibit 3. In view of the evidence submitted herewith and the foregoing remarks, the §112, second paragraph rejections as to "tumbler" and "fortified" are believed overcome.

The language "characterized by a base diameter" added to the independent claims following the word "base" was objected to in the October 18, 2002 Office Action under 35 USC §112, second paragraph as well. By way of the foregoing amendments, the language "characterized by a base diameter" has been replaced with – defining a base diameter – consistent with Figures 1A, 6A, 8 and so forth. This rejection is also believed overcome.

In the Office Action of October 18, 2002, the previous rejections of the claims over art were withdrawn and the claims were rejected under 35 USC §103(a) over United States Patent No. 5,433,337 to *Willbrandt* and/or over *Willbrandt* '337 in view of various secondary references. *Willbrandt* '337, cited by Applicant, has formed the basis of all outstanding substantive rejections. These rejections are based on obviousness, only, and are believed overcome by the enclosed *Declaration*.

Applicant submits herewith a *Declaration of Erland R. Sandstrom* directed to the unexpected results found with the cups of the present invention. Those unexpected results are three-fold. First, it was found that the tumblers of the invention surprisingly and dramatically reduced "lip feel negatives" observed by users of the tumblers. Second, it was found that the tumblers of the present invention were surprisingly impact resistant, an important feature for disposable cups where shipping and handling may include collisions and so forth at times. Third, it was found that the tumblers of the invention could be prepared using a conventional injection blow-molding process, even though the tumblers

have an unconventional shape, that is, did not have a curled rim as shown in United States Patent No. 4,540,543 and **Figure 4A** of the above-noted application. This result was also unexpected.

In view of its unique and surprising properties and unexpected amenability to forming by conventional processing, the claims directed to the inventive tumblers are believed allowable.

The Examiner has given little patentable weight to the claim terminology "injection blow molded" and so forth as noted on page 5 of the October 18, 2002 Office Action:

Furthermore, the claimed aspects of the tumbler being 'injection blow molded' and prepared from an 'injection molded parison' and the volume of the container being 1.5 – 4 times the volume of the parison are directed to process limitations, and therefore given little patentable weight.

The enclosed *Declaration of Erland R. Sandstrom* points out that "injection blow molded" and like terminology are product limitations. As such, they must be considered as part of the claim. See MPEP §2116.01; §2143.03. Note also *In re Garnero*, 162 USPQ 221, 223 (CCPA 1969) (Exhibit 3 hereto) where the Court noted that claim language such as "expanded perlite particles which are interbonded to one another by interfusion between the surfaces of the perlite particles while in a pyroplastic state ...." is a structural limitation to a claim:

On appeal the solicitor's position appears to be that the only distinction between appellant's product and the products of the prior art is the process by which appellant's product is made; and, as that process has been found to be unpatentable in our previous decision of *In re Garnero*, 52 CCPA 1370, 345 F.2d 589, 145 USPQ 457 (1965), then the product claims are likewise unpatentable. The solicitor is in effect reading claim 1, which recites "expanded perlite particles which are interbonded one to another by interfusion between the surfaces of the

perlite particles while in a pyroplastic state to form a porous perlite panel," as a product claim containing a process limitation and then applying the rationale expressed by this court in *In re Stephens*, 52 CCPA 1409, 345 F.2d 1020, 145 USPQ 656 (1965); and *In re Dilnot*, 49 CCPA 1015, 300 F.2d 945, 133 USPQ 289 (1962).

The trouble with the solicitor's approach is that it necessarily assumes that claim 1 should be construed as a product claim containing a process, rather than structural, limitation. However, it seems to us that the recitation of the particles as "interbonded one to another by interfusion between the surfaces of the perlite particles" is as capable of being construed as a structural limitation as "intermixed," "ground in place," "press fitted," "etched," and "welded," all of which at one time or another have been separately held capable of construction as structural, rather than process, limitations. The correct inquiry therefore, it appears to us, is whether the product defined by claim 1 is patentably distinguishable over the disclosures of Thomas and Pierce in view of the structural limitation defining the panel as "consisting essentially of expanded perlite particles \* \* \* interbonded one to another by interfusion between the surfaces of the perlite particles." Neither Thomas nor Pierce disclose expanded perlite particles interbonded one to another by interfusion between the surfaces thereof; it is not therefore reasonable to view such interbonding to be obvious by considering the references collectively.

Here, the volume of the tumbler is specified in many claims by way of the volume of the parison from which it was prepared. The relative volume of the tumbler is clearly a structural feature of the claimed product which should be considered as such in view of the enclosed *Declaration*.

*Willbrandt* '337 does not teach an injection blow-molding process where the volume of the product tumbler is from 1.5 – 4 times the volume of an injection molded parison. In fact, *Willbrandt* '337 is preferably directed to an injection molded cup as is seen in Column 5, lines 29-35:

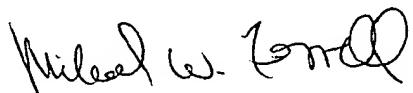
The cup 10 can be made by any suitable method known to those skilled in the art, such as injection molding, blow molding, vacuum forming, stretch molding, or thermal molding. The preferred method uses injection molding which is well known to those skilled in the art.

The claimed invention, on the other hand, is specifically directed to an injection blow-molded tumbler having a fortified rim with a thickness of 1.5 – 6 times the adjacent sidewall and a volume of 1.5 – 4 times the parison from which it was made in Claims 1, 2, 10, 16, 22, 30, 42 and 50. These claims, as well as their dependent claims, are believed allowable because (1) *Willbrandt* '337 and the other references do not suggest the claimed combination and (2) even if that combination were suggested, the combination is patentable in view of the surprising results.

With respect to the remaining independent claims and their dependent claims, the subject matter there is believed patentable in view of the unexpected results enumerated in the enclosed *Declaration of Erland R. Sandstrom*.

If for any reason the Examiner would like to discuss this case, the Examiner is invited to call at the number listed below.

Respectfully submitted,



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January 16, 2003

# **EXHIBIT 1**

EXHIBIT 1

**tum·bler** ♀ (tum' blər), *n.*

1. a person who performs leaps, somersaults, and other bodily feats.
2. (in a lock) any locking or checking part that, when lifted or released by the action of a key or the like, allows the bolt to move.
3. a stemless drinking glass having a flat, often thick bottom.
4. (in a gunlock) a leverlike piece that by the action of a spring forces the hammer forward when released by the trigger.
5. *Mach.*
  - a. a part moving a gear into place in a selective transmission.
  - b. a single cog or cam on a rotating shaft, transmitting motion to a part with which it engages.
6. a tumbling box or barrel.
7. a person who operates a tumbling box or barrel.
8. one of a breed of dogs resembling a small greyhound, used formerly in hunting rabbits.
9. Also called *roller*. one of a breed of domestic pigeons noted for the habit of tumbling backward in flight.
10. a toy, usually representing a fat, squatting figure, that is weighted and rounded at the bottom so as to rock when touched.
11. a tumbrel or tumble cart.

[1300-50; ME: acrobat; see TUMBLE, -ER<sup>1</sup>. Compare LG *tümeler* drinking-cup, kind of pigeon]

# **EXHIBIT 2**

EXHIBIT 2

**fortify**  (fôr' tî fî'), v., -fied, -fy·ing.

—v.t.

1. to protect or strengthen against attack; surround or provide with defensive military works.
2. to furnish with a means of resisting force or standing strain or wear: *to fortify cotton with nylon*.
3. to make strong; impart strength or vigor to: *to fortify oneself with a good breakfast*.
4. to increase the effectiveness of, as by additional ingredients: *to fortify a diet with vitamins*; *to fortify a lotion with lanolin*.
5. to strengthen mentally or morally: *to be fortified by religious faith*.
6. to confirm or corroborate: *to fortify an accusation with facts*.
7. *Nutrition*. to add one or more ingredients to (a food) to increase its nutritional content.
8. to add alcohol to (wine or the like).

—v.i.

9. to set up defensive works; erect fortifications.

[1400–50; late ME *fortifien* < MF *fortifier* < LL *fortificare*, equiv. to L *forti(s)* strong + -ficāre -FY]

—**for·ti·fi·a·ble**, adj.

—**for·ti·fi·er**, n.

—**for·ti·fy·ing·ly**, adv.

—Syn.3. strengthen, reinforce. 5. hearten, embolden.

# **EXHIBIT 3**

### EXHIBIT 3

In re GARNERO, 162 USPQ 221 (CCPA 1969)  
In re GARNERO

(CCPA)

· 162 USPQ 221

· 6/26/1969

Decided June 26, 1969

No. 8172

U.S. Court of Customs and Patent Appeals

Headnotes

#### PATENTS

1. Claims—Article defined by process of manufacture (§ 20.15)

Mere presence of method limitation in article claim which is otherwise allowable does not so poison claim as to render it unpatentable.—In re Garnero (CCPA) 162 USPQ 221.

2. Claims—"Comprising," "Consisting," etc. (§ 20.30)

"Consisting essentially of" terminology in claim excludes additional unspecified ingredients which would affect basic and novel characteristics of product defined in balance of claim.—In re Garnero (CCPA) 162 USPQ 221.

Particular patents—Structural Material

Garnero, Structural Material of Expanded Minerals and Method for Manufacture, claims 1 and 9 of application allowed.—In re Garnero (CCPA) 162 USPQ 221.

#### Case History and Disposition:

Appeal from Board of Appeals of the Patent Office.

Application for patent of Anthony L. Garnero, Serial No. 381,145, filed July 8, 1964; Patent Office Group 160. From decision rejecting claims 1 and 9, applicant appeals.

Reversed.

See also 145 USPQ 457 .

#### Attorneys:

HERMAN HERSH and MCDOUGALL, HERSH, SCOTT & LADD, both of Chicago, Ill. (GEORGE A. DEGNAN, Washington, D. C., of counsel) for appellant.

JOSEPH SCHIMMEL (FRED W. SHERLING of counsel) for Commissioner of Patents.

Judge:

Before RICH, Acting Chief Judge, HOLTZOFF and MCLAUGHLIN, Judges, sitting by designation, and ALMOND and BALDWIN, Associate Judges.

Opinion Text

Opinion By:

BALDWIN, Judge.

This appeal is from the Patent Office Board of Appeals decision affirming the examiner's rejection of two claims 1 of appellant's application 2 as unpatentable

under 35 U.S.C. 103, claim 1 being rejected on Thomas 3 in view of Pierce 4 and claim 9 being rejected on the same combination of references further in view of Ford. 5 No claim has been allowed.

#### The Invention

The invention relates to a thermal insulation panel formed from expanded perlite particles. The particles are held together without any additional material, such as an external bonding agent, by interfusion between the surfaces of the perlite particles. Interfusion is effected by taking the initially unexpanded perlite particles and heating them rapidly for expansion so that combined water associated with the particles is released as a vapor which operates as a flux which enables the particles to become stuck together at temperatures as low as 1400 °F. 6 The specification describes the product as "having a density which may vary from 1 pound per cubic foot to as much as 80 pounds per cubic foot while still maintaining a porosity and a mass integrity sufficient to enable use thereof as a structural insulation material."

Claims 1 and 9 read:

1. A composite, porous, thermal insulation panel characterized by dimensional stability and structural strength consisting essentially of expanded perlite particles which are interbonded one to another by interfusion between the surfaces of the perlite particles while in a pyroplastic state to form a porous perlite panel.
9. An insulation panel as claimed in Claim 1 in which the panel is formed in cross-section with layers of different densities.

#### The References

Thomas discloses a pipe insulating composition which utilizes sodium silicate as a binding agent to hold already expanded perlite particles together, with sodium chloride being used as a setting agent. A mixture of the expanded perlite, the sodium silicate binder, and the sodium chloride setting agent are subjected to a compression from 5 to 7 tons per square foot, at ambient temperature, to produce articles formed of the composition. Prior to compression, Thomas' aggregate mixture has a density of 4 to 10 pounds per cubic foot.

Pierce discloses a building material utilizing expanded perlite particles which are mixed with hot hydrated lime (CaO) at a temperature of about 300° F. Pierce states that "the exterior of the granules reacts chemically to bind the entire mass together." The specification discloses that the end product may have a density of 40-50 pounds per cubic foot.

Ford discloses cellular glass pellets having a core of highly cellulated glass, an intermediate layer of less highly cellulated glass, and an outer layer of substantially uncellulated glass, thus demonstrating a panel having a cross-section of varying density.

#### The Rejection

Sustaining the examiner's rejection of claim 1 as being unpatentable over Thomas in view of Pierce under 35 U.S.C. 103, the board stated:

The language used by Pierce is considered to be readable on "interbonding by interfusion" as expressed in the claims at issue. Albeit that the condition limitations appear to differ somewhat from the details of the process described by the patentees, we are apprised of no facts which would lead us to conclude that the instantly claimed product necessarily would be patentably unique when compared to that resulting from the prior art methods. The board rejected arguments by appellant that the inclusion in the claim of the phrase "consisting essentially of" would exclude the presence of an ex

ternal binder and thus distinguish from the composition of Thomas which uses a sodium silicate binder and that the phrase "expanded perlite particles which are interbonded one to another by interfusion between the surfaces" distinguishes from the chemical bonding of Pierce which employs lime as an additional ingredient. Instead the board noted the existence of other claims (now cancelled) adding other limitations to claim 1 and stated: [T]he recital of "consisting essentially" renders a claim open only for the inclusion of unspecified ingredients which would not materially affect the basic and novel characteristics of the product defined in the balance of the claim. \* \* \* Where, as here, other claims indicate that particular components are not excluded by the words "consisting essentially of", appellant's arguments as to the existence of diverse reaction mechanisms in the prior art processes cannot be accepted as conclusive of a factual patentable distinction in his claimed product.

The examiner's rejection of claim 9 on the ground that the feature of different densities in different layers would be an obvious modification in view of Ford, was affirmed by the board in that:

Appellant has urged no patentable merit in the specific modifications set forth in claims 5 through 9, and we perceive none.

#### Opinion

On appeal the solicitor's position appears to be that the only distinction between appellant's product and the products of the prior art is the process by which appellant's product is made; and, as that process has been found to be unpatentable in our previous decision of In re Garnero, 52 CCPA 1370, 345 F.2d 589, 145 USPQ 457 (1965), then the product claims are likewise unpatentable. The solicitor is in effect reading claim 1, which recites "expanded perlite particles which are interbonded one to another by interfusion between the surfaces of the perlite particles while in a pyroplastic state to form a porous perlite panel," as a product claim containing a process limitation and then applying the rationale expressed by this court in In re Stephens, 52 CCPA 1409, 345 F.2d 1020, 145 USPQ 656 (1965); and In re Dilnot, 49 CCPA 1015, 300 F.2d 945, 133 USPQ 289 (1962).

The trouble with the solicitor's approach is that it necessarily assumes that claim 1 should be construed as a product claim containing a process, rather than structural, limitation. However, it seems to us that the recitation of the particles as "interbonded one to another by interfusion between the surfaces of the perlite particles" is as capable of being construed as a structural limitation as "intermixed," "ground in place," "press fitted," "etched," and "welded," all of which at one time or another have been separately held capable of construction as structural, rather than process, limitations.<sup>7</sup> The correct inquiry therefore, it appears to us, is whether the product defined by claim 1 is patentably distinguishable over the disclosures of Thomas and Pierce in view of the structural limitation defining the panel as "consisting essentially of expanded perlite particles \* \* \* interbonded one to another by interfusion between the surfaces of the perlite particles."<sup>8</sup> Neither Thomas nor Pierce disclose expanded perlite particles interbonded one to another by interfusion between the surfaces thereof; it is not therefore reasonable to view such interbonding to be obvious by considering the references collectively.

[2] Moreover, the "consisting essentially of \* \* \*" terminology would, as the board pointed out, exclude additional unspecified ingredients which would affect the basic and novel characteristics of the product defined in the balance of the claim. However, to follow the teachings of Thomas combined in any manner with Pierce, would require the presence of at least one additional material with the expanded perlite, whether it be the sodium silicate binder of Thomas or the hydrated lime which Pierce uses to provide a chemical joining action. In either event it cannot be said that the additional ingredient would not materially affect the basic

and novel characteristic of appellant's product which is that the perlite particles are held together without any additional material.

The rejections of claims 1 and 9 are therefore reversed. As to claims 2 and 5-8, the other claims initially appealed but not pursued, the appeal is dismissed.

MCLAUGHLIN, Judge, concurs in the result.

Footnotes

Footnote 1. The rejections of only claims 1 and 9 are pursued on appeal here.

Footnote 2. Serial No. 381,145, filed July 8, 1964, for "Structural Material of Expanded Minerals and Method for Manufacture," allegedly a continuation of application serial No. 714,831, filed February 12, 1958, for "Structural Material of Expanded Minerals and Method for Manufacturing." The parent application was before this court in *In re Garnero*, 52 CCPA 1370, 345 F.2d 589, 145 USPQ 457 (1965), and we there affirmed the rejection of claims directed to a method of manufacturing an expanded perlite structure as being obvious under 35 U.S.C. 103 in view of certain, different prior art cited in that case.

Footnote 3. U. S. Patent 2,600,812, issued June 17, 1952.

Footnote 4. U. S. Patent 2,517,235, issued August 1, 1950.

Footnote 5. U. S. Patent 2,691,248, issued October 12, 1954.

Footnote 6. Thus, appellant's specification states:

Fusion believed to be necessary for adhesion occurs with the average perlite at a temperature within the range of 2000-2200° F. It has been found, however, that the combined water which is released as a vapor when the perlite particles are heated to a pyroplastic state operates as a flux which enables the desired stickiness to develop for agglomeration when the particles are heated to a temperature as low as 1400° F. but preferably at a temperature above 1600° F. Thus agglomeration can be achieved at a temperature starting at 1400° F. Best adhesions and expansions are secured when the particles are heated to a temperature above 1800° F. Thus the preferred conditions for operation from the standpoint of expansion and agglomeration will reside in heating the particles to a temperature of 1800-2200° F.

Footnote 7. Saxe and Levitt, Product by Process Claims and Their Current Status in Chemical Patent Office Practice, 42 JPOS 528, 536, 537 (August 1960), and cases collected thereat.

See also a recent decision of this court in *In re Steppan*, 55 CCPA 791, 394 F.2d 1013, 156 USPQ 143 (1967), in which we found that use of the term "condensation product" in a chemical claim to a product did not thereby render the claim a product-by-process claim.

Footnote 8. [1] Taking the view we do that the just recited limitation is structural in nature we do not find it necessary to consider the additional recitation "while in a pyroplastic state \* \* \*" as the mere presence of a method limitation in an article claim which is otherwise allowable would not so poison the claim as to render it unpatentable. *Ex parte Lindberg*, 157 USPQ 606 (P.O. Bd. App. 1967).

APPENDIX B

(marked-up version of Claims 1, 2, 10, 16, 22, 30, 36, 42, 50 and 61)

1. (Twice Amended) An injection blow-molded tumbler formed from a polymeric material comprising:

(a) a base characterized by defining a base diameter forming the bottom of said tumbler, the base also defining an outer edge thereof;

(b) a sidewall integrally formed with said base extending upwardly from the outer edge thereof defining about its upper extremity an opening having a diameter generally larger than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead;

wherein said fortified rim has a thickness from about 1.5 to about 6 times the thickness of the adjacent portion of said sidewall and wherein the volume of the injection blow-molded tumbler is from about 1.5 to about 4 times the volume of an injection molded parison from which it was prepared.

2. (Twice Amended) An injection blow-molded tumbler formed from a polymeric material comprising:

(a) a base characterized by defining a base diameter forming the bottom of said tumbler, the base also defining an outer edge thereof;

(b) a sidewall integrally formed with said base extending upwardly from the outer edge thereof having a thickness of from about 5 to about 50 mils defining about its upper extremity an opening having a diameter generally larger than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead;

(c) said sidewall extending upwardly with a taper of from about 1.0 to about 4.5 degrees, and

wherein said fortified rim has a thickness of from about 1.5 to about 6 times the thickness of the adjacent portion of said sidewall and wherein the volume of the injection blow-molded tumbler is from about 1.5 to about 4 times the volume of an injection molded parison from which it was prepared.

10. (Twice Amended) An injection blow-molded tumbler formed from a polymeric material comprising:

(a) a base characterized by defining a base diameter forming the bottom of said tumbler, the base also defining an outer edge thereof;

(b) a sidewall integrally formed with said base extending upwardly from the outer edge thereof having a thickness of from about 5 to about 50 mils defining about its upper extremity an opening having a diameter generally longer than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead;

(c) the volume of said injection blow-molded tumbler being from about 1.5 to about 4 times the volume of an injection molded parison from which it was prepared.

wherein said fortified rim has a thickness of from about 1.5 to about 6 times the thickness of the adjacent portion of said sidewall and

wherein said tumbler has a taper from about 1.0 to about 4.5 degrees, and

(d) wherein further the sidewall is provided with a mold-in design comprising a series of triangular ridges deeper in dimension than the wall caliper thus providing strength by way of corrugation and having a wall thickness the same as the rest of the tumbler.

16. (Twice Amended) An injection blow-molded tumbler formed of an optically clear polymer comprising:

- (a) a substantially circular base portion characterized by defining a base diameter, the base portion also defining with an outer edge;
- (b) substantially cylindrical sidewall extending upwardly from the outer edge of the base portion having a thickness of from about 5 to about 50 mils defining about its upper extremity an opening having a diameter generally larger than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead;

said sidewall extending upwardly with an angular taper with its central axis of from about 1.0 to about 4.5 degrees;

said fortified rim having a thickness of from about 1.5 to about 6 times the thickness of the adjacent portion of said sidewall;

said sidewall further including a pattern which alters the cylindrical character thereof over at least a portion of said sidewall which pattern is operative as a grip portion for a user and wherein the volume of the injection blow-molded tumbler is from about 1.5 to about 4 times the volume of an injection molded parison from which it was prepared.

22. (Twice Amended) An injection blow-molded tumbler formed of a polymeric material comprising:

- (a) a base characterized by defining a base diameter forming the bottom of said tumbler, the base also defining an outer edge thereof;
- (b) a sidewall integrally formed with said base extending upwardly from the outer edge having a thickness of from about 5 to about 50 mils defining about its upper extremity an opening

having a diameter generally larger than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead;

said sidewall extending upwardly with a taper of from about 2.5 to about 10 degrees;

wherein said fortified rim has a thickness from about 1.5 to about 6 times the thickness of the adjacent portion of said sidewall; and

wherein the volume of the injection blow-molded tumbler is from about 1.5 to about 4 times the volume of an injection molded parison from which it was prepared.

| 30. (Twice Amended) ) An injection blow-molded tumbler formed of an optically clear polymer comprising:

| | (a) a base characterized by defining a base diameter forming the bottom of said tumbler, the base also defining an outer edge thereof;

| | (b) a sidewall integrally formed with said base extending upwardly from the outer edge thereof having a thickness of from about 5 to about 50 mils defining about its upper extremity an opening having a diameter generally larger than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead;

the volume of said injection molded tumbler being from about 1.5 to about 4 times the volume of an injection molded parison from which it was prepared;

wherein said fortified rim has a thickness of from about 1.5 to about 6 times the thickness of the adjacent portion of said sidewall over a height of at least 2 mils; and

(c) wherein further the sidewall is provided with a design comprised of wall embossments of at least as prominent as  $\frac{1}{2}$  the caliper of the sidewall.

36. (Twice Amended) An injection blow-molded tumbler formed of an optically clear polymer comprising:

- (a) a substantially circular base portion characterized by defining a base diameter, the base portion also defining with an outer edge;
- (b) a substantially cylindrical sidewall extending upwardly from the outer edge of the base portion having a thickness of from about 5 to about 50 mils defining about its upper extremity an opening having a diameter generally larger than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead;

said sidewall extending upwardly with an angular taper with its central axis of from about 4.5 to about 10 degrees;

said fortified rim having a thickness of from about 1.5 to about 6 times the thickness of the adjacent portion of said sidewall;

said sidewall further including a pattern which alters the cylindrical character thereof over at least a portion of said sidewall which pattern is operative as a grip portion for a user, and

- (c) wherein further the pattern comprises of wall embossments at least as prominent as  $\frac{1}{2}$  the caliper of the sidewall.

42. (Twice Amended) An injection blow-molded tumbler formed of a polymeric material comprising:

- (a) a base characterized by defining a base diameter forming the bottom of said tumbler, the base also defining an outer edge thereof;

(b) a sidewall integrally formed with said base extending upwardly from the outer edge thereof having a thickness of from about 5 to about 50 mils defining about its upper extremity an opening having a diameter generally larger than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead;

said sidewall extending upwardly with a taper of from about 1 to about 10 degrees; wherein said fortified rim has a thickness from about 1.5 to about 6 times the thickness of the adjacent portion of said sidewall, said tumbler defining a volume of at least about 16 fluid ounces wherein the volume of the injection blow-molded tumbler is from about 1.5 to about 4 times the volume of an injection molded parison from which it was prepared.

50. (Twice Amended) An injection blow-molded disposable tumbler of an optically clear polymer comprising:

(a) a base characterized by defining a base diameter forming the bottom of said tumbler, the base also defining an outer edge thereof;

(b) a sidewall integrally formed with said base extending upwardly from the outer edge having a thickness of from about 5 to about 50 mils defining about its upper extremity an opening having a diameter generally larger than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead;

the volume of said injection molded tumbler being from about 1.5 to about 4 times the volume of an injection molded parison from which it was prepared and said tumbler defining a volume of from about 16-20 fluid ounces;

wherein said fortified rim has a thickness from about 1.5 to about 6 times the thickness of the adjacent portion of said sidewall; and

wherein said tumbler has a taper from about 2.5 to about 10 degrees.

61. (Twice Amended) An injection blow-molded polycarbonate container comprising:

- (a) a base characterized by defining a base diameter forming the bottom of said container, the base also defining an outer edge thereof;
- (b) a sidewall integrally formed with said base extending upwardly from the outer edge thereof and having a thickness of from about 50 to about 500 mils to an opening having a diameter generally larger than the base diameter provided with a fortified rim integrally formed with the sidewall in the form of a continuous solid polymer bead about its upper extremity, wherein both width and height of the fortified rim are from about 1.1 to about 4 times a thickness of an adjacent sidewall.